Occurrence of the Malayan Badger or Teledu in Borneo.

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During a recent collecting expedition into the interior of Northern Sarawak I heard from the natives there of the existence of a cave-dwelling animal, remarkable for its powerful and disagreeable odour. Subsequently I was fortunate enough to obtain two-flat skins from a native chief (in exchange for a pair of tronsers). Although the head and hind-legs have been cut off, the skins are in comparatively good condition and quite recognizable as those of the Malayan Badger.

This Badger differs from the true Badgers of Europe and Asia in having a long pointed mobile muzzle and a very short tail. It is only found in Java, Sumatra, Borneo, Great Natuna Islands and Palawan*. The Javanese species was described by Desmarest as long ago as 1820. It appears to be by no means uncommon in that island, where it is known as the Teledu or Sigoeng.

In Borneo, however, it is evidently a great rarity. Only two-specimens appear to be known hitherto. They are in the British Museum and were described by Oldfield Thomas in 1902 as Mydaus lucifer. One is a female collected by Sir Hugh Low in 1876 "from the mainland near Labuan," and the other from Papar (North Borneo), collected by A. H. Everett.

The two skins now obtained for the Raffles Museum, Singapore, agree well with the description of *M. lucifer*, except in size. Old-field Thomas gives the dimensions of the type (in skin) as follows:—

Head and body 340 mm.; tail 35 mm.; with hairs 90 mm. The Raffles Museum skins are much bigger:

Neck and body 540 mm.; tail 40-45 mm.; with hairs 80-85 mm.

The light marking is very broad and conspicuous on the nape, 95 mm. across widest part narrowing on the middle of the back down to 20 mm. in one skin and to 10 mm., followed by a very short break altogether, in the other. This marking becomes slightly

^{*} Dr. Hanitsch records one captured in the Botanic Gardens, Singapore in 1909. He suggests that it was probably a specimen escaped from captivity. It is the Java form; its natural occurrence in Singapore would certainly be curious. On the other hand it is difficult to imagine anyone attempting to keep such an odoriferous animal as a pet or indeed for any purpose!

wider again on the lumbar region, whence it passes on to the tail. In one skin the hairs at the base of the tail are dark, forming a basal ring which Oldfield Thomas notes is absent in his *lucifer*. In the other the underside only of the tail is brownish.

Oldfield Thomas comments on the roundness of the skull of his type, which he says is generally a youthful character. He adds, however, that "the type seems fully adult, its sphenoid suture being quite and its basilar partly closed."

If he is right in regarding his two specimens as adults, then the two skins in the Raffles Museum possibly represent a new species, or subspecies, twice the size of that described by Oldfield Thomas from Borneo as *lucifer*. I would suggest naming this new form Mydaus javanensis montanus.

I am inclined to think that it would be more correct to relegate all the *Mydaus* "species" to subspecific rank, regarding them all as geographical races of but one species, which would be known by the oldest name, viz. *M. javanensis* Desmarest.

The exceptional size of montanus however might perhaps entitle it alone to specific distinction, but until a complete skin with skull is seen, I prefer to regard it as the Borneau mountain form of javanensis, while the name lucifer must be restricted to the Borneau lowland form.*

Life in the mountain fastnesses of the interior of Borneo, undisturbed or perhaps less harassed by native hunters, who alone would constitute their real danger, might well have favoured the development of a larger and presumably stronger race, whose chances of survival were greater than those of their less favoured relations living in the more populated lowland country.

Evidently both forms are rare and much restricted in their distribution; probably they are dying out. Collectors in Dutch Borneo and Sarawak have apparently failed to find it in that part of Borneo, but from inquiries made recently in North Borneo it seems to be known there still. One correspondent, Mr. R. J. Cockrill, writes from Lahad Datu, British North Borneo (4th January, 1921):—

"I have twice seen the animal, called here "Singgoing" in this District, East Coast.

"The first occasion was some years ago when one came under my Bungalow in Lahad Datu at night. It was attacked by my dogs and emitted the very strong smell you mention,—so much so that my guests and myself had to clear out until the atmosphere was less 'thick.' We killed the animal in my garden.

^{*} The introduction of a new name based on such inadequate material is usually difficult to defend. I would, however, quote as a precedent the Argus Pheasant (A. bipunctatus) described some 50 years ago from a single feather, which is still the only known "specimen" of that mysterious species and still to be sought for in this part of the world.

"A few weeks ago I came across a recently killed one near our cattle sheds on the Segama River, about 8 miles from Lahad Datu."

Another correspondent, Mr. E. Stuart Young, who spent eleven years in British North Borneo, gives me the following interesting note:—

"It was in 1915 near the banks of the Pegallen River some ten miles as the crow flies above Tenom, that one of my natives met this beast at the foot of a big tree. As he got up to it the powerful odour you mention was emitted and he was rendered unconscious for about an hour. The animal ran into a hole at the base of the tree and the man was carried away by his companions.

"The native, who was very intelligent, was a Kadayan brought up amongst the Dayaks in Sarawak and had been all over the jungles whose water flows into Brunei Bay. He had never seen or heard of such an animal before."

The Kalabits informed me that, so far as they knew, these Badgers, including the two skins they gave me, were only found in caves on Mt. Murud, a mountain which forms the northern and highest end of the Pemabo Range at the headwaters of the Baram River, Long 115° 30′ E & Lat 3° 50′ N. This mountain has never been visited by Europeans, although one or two Sarawak Government Officers have been within sight of it and passed close to it.

The Kalabits told me of the powerful smell emitted by this Badger—"Dengan-ruit" is their name for it. They said it was so bad that dogs, on entering a Badger's cave, had actually been killed by the poisonous smell. I am afraid I did not treat this part of their tale as seriously as perhaps it may have deserved. However, they assured me that it was strictly truc. I was therefore particularly interested to receive Mr. Stuart Young's account quoted above and to find the following note published in the *Proceedings of the Zoological Society of London*, 1879 (pp. 664-5):—

"The following extracts from a letter addressed to the Secretary by Mr. Henry O. Forbes, dated "Kosala, Bautam, W. Java, July 27, 879, were read:—

"My present residence is about 2,000 feet above the sea. Many, many times, especially in the evening just after dusk, the Mydaus has discovered its proximity to us by its extremely disagreeable and peculiar odour. So powerful indeed is this that natives attempting to eatch these animals, often fall down insensible if struck by the discharge from their anal battery. Even at the distance of half a mile and more the stink, as I must eall it, permeates the atmosphere so thickly that it is plainly discernible by the taste."

In regard to the altitude at which this Badger is found, Forbes writes in the above-quoted letter:

"The following note as to the distribution of the Badgerheaded Mydaus (Mydaus meliceps), called by the Sundanese "Sigoeng" (Dutch spelling), may not be without interest.

"Horsfield says that this species is confined exclusively to those mountains which have an elevation of more than 7,000 feet above the surface of the ocean. There it occurs with the same regularity as many plants. The long extended surface of Java, abounding with isolated volcanoes with conical points which exceed this elevation, affords many places favourable to its resort."

Lydekker makes the following statement in the Royal Natural History, 1897, Vol. II, p. 88:—

"The Malayan badger appears to be confined to the mountains of Java, Sumatra and Borneo, ranging in the former island from an elevation of about five hundred to upwards of seven thousand feet above the level of the sea. In Borneo it is found at elevations of not more than eighty or one hundred feet, and in Sumatra does not ascend above one thousand feet."

I do not know on what authority Lydekker makes the above statement regarding the Bornean species. The two skins from Mt. Murud would not come from an elevation of less than 3,000 ft., as the country slopes up to the foot of the Pemabo Range, which rises from a base about 3,000 feet above the sea level to an altitude of over 6,000 feet. The height of Mt. Murud is probably about 8,000 feet. The Kalabits told me that these badgers were found in caves on the mountain, but I did not ascertain how far up.

As noted before, only two Borncan specimens have apparently found their way to European Museums. They are both in the British Museum, whence Mr. Oldfield Thomas writes to me in a letter dated 1st January 1921:—

"I am sorry to say that with regard to Mydaus we are where we were when I wrote my paper in 1902.

"We have had no more specimens and I can say no more than I did then. So Mydaus is evidently a rare animal."

The Director of the Zoological Museum, Buitenzorg, Java, informs me that they have no specimens of *Mydaus* from Borneo in that Museum.

The nearest allies to the Malay Badgers (Mydaus) are the Hog-Badgers or Sand-Badgers (Arctonyx), of which species occur in China, India, the Malay Peninsula, Sumatra and Borneo.* They are distinguished from the Malayan Badgers by their longer and more bushy tails, although they resemble them in the long and naked muzzle.

^{*} According to Trouessart and Gyldenstolpe, but no definite record of any specimen from Borneo is given.

R. A. Soc., No. 83, 1921.

Bibliographical Note.

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- 1821. Cuvier, F., Mammals, Vol. II, pl. 159 (Figures Mydaus meliceps from Java (?) = M. javanensis).
- 1869. Gray, J. E., Catalogue of Carnivorous, Pachydermatous and Edentate Mammalia in the British Museum, p. 131. (Records three varieties from Sumatra; apparently no specimen in the British Museum at that date from Borneo or Java).
- 1879. FORBES, H. O., Proc. Zool. Soc. Lond. pp. 664-5 (Remarks on their distribution and habits in Java).
- 1893. EVERETT, A. H., Proc. Zool. Soc. Lond. p. 494, "A Nominal List of the Mammals inhabiting the Bornean Group of Islands." (Includes Mydaus meliceps in his list, but without comment or note as to locality).
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